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                 A new search aid, the Company Name Thesaurus, available in
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                 MEDLINE and LMEDLINE reloaded
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     9
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         MAR 29
                 New monthly current-awareness alert (SDI) frequency in RAPRA
NEWS 12
         APR 26
                 PROMT: New display field available
NEWS 13
        APR 26
                 IFIPAT/IFIUDB/IFICDB: New super search and display field
                 available
        APR 26
                 LITALERT now available on STN
NEWS 14
NEWS 15
         APR 27
                 NLDB: New search and display fields available
NEWS 16
        May 10
                 PROUSDDR now available on STN
NEWS 17
         May 19
                 PROUSDDR: One FREE connect hour, per account, in both May
                 and June 2004
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         May 12
                 EXTEND option available in structure searching
         May 12
                 Polymer links for the POLYLINK command completed in REGISTRY
NEWS 19
NEWS 20
         May 17
                 FRFULL now available on STN
NEWS 21
         May 27
                 STN User Update to be held June 7 and June 8 at the SLA 2004
                 Conference
NEWS 22
         May 27
                 New UPM (Update Code Maximum) field for more efficient patent
                 SDIs in CAplus
NEWS 23
                 CAplus super roles and document types searchable in REGISTRY
         May 27
NEWS 24
         May 27
                 Explore APOLLIT with free connect time in June 2004
             MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT
NEWS EXPRESS
              MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
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              CAS World Wide Web Site (general information)
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=> s lymphotoxin

L1 11251 LYMPHOTOXIN

=> s l1 and p33

L2 16 L1 AND P33

=> s l1 and beta

L3 5595 L1 AND BETA

=> s lymphotoxin-beta

L4 1441 LYMPHOTOXIN-BETA

=> s 14 and p33

L5 0 L4 AND P33

=> s 14 and hiv

L6 15 L4 AND HIV

=> dup rem 16

PROCESSING COMPLETED FOR L6

L7 9 DUP REM L6 (6 DUPLICATES REMOVED)

=> d ti 1-9

L7 ANSWER 1 OF 9 MEDLINE on STN DUPLICATE 1

TI Cytokine networks are pre-activated in T cells from **HIV**-infected patients on HAART and are under the control of cAMP.

- L7 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Apparatus and method for flow electroporation of biological samples
- L7 ANSWER 3 OF 9 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
- TI Antiviral mediated suppression of NF-kappaB and induction of the EBV lytic cycle; a novel therapy for EBV-associated Burkitt's lymphoma.
- L7 ANSWER 4 OF 9 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
- TI Microarray analysis of brains from macaques with lentiviral encephalopathy

showed up-regulation of genes that promote virus replication and down-regulation of neurotrophic genes.

L7 ANSWER 5 OF 9 MEDLINE on STN

DUPLICATE 2

- TI Signaling through the **lymphotoxin-beta** receptor stimulates **HIV-1** replication alone and in cooperation with soluble or membrane-bound TNF-alpha.
- L7 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Soluble lymphotoxin-beta receptors, anti-lymphotoxin receptor antibodies, and anti-lymphotoxin ligand antibodies as therapeutic agents for the treatment of immunological diseases
- L7 ANSWER 7 OF 9 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
- TI Tumor necrosis factor receptor-associated factor (TRAF) 5 and TRAF2 are involved in CD30-mediated NF kappa B activation
- L7 ANSWER 8 OF 9 MEDLINE on STN
- TI TRAF5, an activator of NF-kappaB and putative signal transducer for the lymphotoxin-beta receptor.
- L7 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Lymphotoxin-.beta. and its therapeutic uses

## => d 9 8 5 ab

- L7 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
- Lymphotoxin-.beta. (LT- $\beta$ ), a membrane protein of AB lymphocytes and a number of other cell types including phorbol ester (PMA) stimulated T cell hybridoma II-23.D7 cells, is isolated and characterized and a cDNA encoding it is cloned and expressed. Lymphotoxin-. beta. forms complexes with other peptides such as lymphotoxin- $\alpha$  (LT- $\alpha$ ) and also forms homooligomers. protein is involved targetting LT- $\alpha$  to the cell surface. The  $LT-\alpha/LT-\beta$  complex may act as an inflammation regulating agent, a tumor growth inhibiting agent, a T cell inhibiting agent, a T cell activating agent, an autoimmune disease regulating agent, or an HIV inhibiting agent (no data). Furthermore, the antitumor activity of the  $LT-\alpha/LT-\beta$  complex may be delivered to tumor cells by tumor infiltrating lymphocytes (TILs) transfected with the gene for LT- $\beta$  (no data). LT- $\beta$  was identified as the protein with which  $LT-\alpha$  was bound on the surface of T-cells. The protein was only found in B- and T-cells. Cloning of a cDNA for LT- $\beta$  by PCR using amino acid sequence-derived primers is described; the cDNA was expressed using the pCDM8 expression cassette with successful expression achieved even without the initiator AUG codon.
- L7 ANSWER 8 OF 9 MEDLINE on STN
- AΒ Tumor necrosis factor (TNF) receptor-associated factors (TRAFs) are signal transducers for several members of the TNF receptor superfamily. We have identified a novel member of the TRAF family by degenerate oligonucleotide polymerase chain reaction amplification that contains a zinc RING finger and zinc finger motifs, a coiled-coil region, and a C-terminal "TRAF" homology domain. In vitro translated TRAF5 binds to the cytoplasmic region of the lymphotoxin-beta receptor (LT-betaR) but not to several other related receptors including CD40, both TNF receptors, Fas, and nerve growth factor receptor. TRAF5 and LT-betaR coimmunoprecipitate when overexpressed in COS7 cells. TRAF5 mRNA expression is found in all visceral organs and overlaps with LT-betaR. These features distinguish TRAF5 from the other members of the TRAF family. The transcription factor NF-kappaB is activated in HEK293 cells by overexpression of full-length TRAF5 but not a truncated form lacking the zinc binding region. Furthermore, overexpression of LT-betaR in

HEK293 cells also results in activation of NF-kappaB, which is partially inhibited by the truncated TRAF5 mutant. These results show TRAF5 is functionally similar to TRAF2 in that both mediate activation NF-kappaB and implicate TRAF5 as a signal transducer for LT-betaR.

DUPLICATE 2 ANSWER 5 OF 9 MEDLINE on STN L7 The level of ongoing HIV-1 replication within an individual is critical to HIV-1 pathogenesis. Among host immune factors, the cytokine TNF-alpha has previously been shown to increase HIV-1 replication in various monocyte and T cell model systems. Here, we demonstrate that signaling through the TNF receptor family member, the lymphotoxin-beta (LT-beta) receptor (LT-betaR), also regulates HIV-1 replication. Furthermore, HIV-1 replication is cooperatively stimulated when the distinct LT-betaR and TNF receptor systems are simultaneously engaged by their specific ligands. Moreover, in a physiological coculture cellular assay system, we show that membrane-bound TNF-alpha and LT-alpha1beta2 act virtually identically to their soluble forms in the regulation of HIV-1 replication. Thus, cosignaling via the LT-beta and TNF-alpha receptors is probably involved in the modulation of HIV-1 replication and the subsequent determination of HIV-1 viral burden in monocytes. Intriguingly, surface expression of LT-alphalbeta2 is up-regulated on a T cell line acutely infected with HIV-1, suggesting a positive feedback loop between HIV-1 infection, LT-alpha1beta2 expression, and HIV-1 replication. Given the critical role that LT-alpha1beta2 plays in lymphoid architecture, we speculate that LT-alpha1beta2 may be involved in HIV-associated abnormalities of the lymphoid organs.

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=> d 9
    ANSWER 9 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
L7
    1994:603367 CAPLUS
AN
DN
    121:203367
    Lymphotoxin-.beta. and its therapeutic uses
ΤI
IN
    Browning, Jeffrey; Ware, Carl F.
    Biogen, Inc., USA; University of California
PA
SO
    PCT Int. Appl., 111 pp.
    CODEN: PIXXD2
DT
    Patent
    English
LA
FAN.CNT 2
    PATENT NO.
                   KIND DATE
                                       APPLICATION NO. DATE
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    WO 1993-US11669 W
                          19931202
    US 1994-222614 B1
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(FILE 'HOME' ENTERED AT 10:32:01 ON 07 JUN 2004)

FILE 'MEDLINE, BIOSIS, SCISEARCH, BIOTECHNO, CAPLUS' ENTERED AT 10:32:37 ON 07 JUN 2004

11251 S LYMPHOTOXIN L116 S L1 AND P33 L25595 S L1 AND BETA L3L4

1441 S LYMPHOTOXIN-BETA

L5 0 S L4 AND P33 15 S L4 AND HIV L6

9 DUP REM L6 (6 DUPLICATES REMOVED) T<sub>1</sub>7

=> dup rem 12 PROCESSING COMPLETED FOR L2

4 DUP REM L2 (12 DUPLICATES REMOVED)

=> d 1-4 ab

ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

The title complex is disclosed. These proteins are found on the surface AB of a number of cells, including phorbol ester-stimulated T-cell-hybridoma II-23.07 cells. The proteins and complexes are useful as antiinflammatory agents, T-cell activating agents, tumor growth-inhibiting agents, and enhancers of tumor infiltrating lymphocytes; they may also be used in the treatment of human immunodeficiency virus infection. Lymphotoxin and the associated p33 protein were purified from phorbol myristoyl acetate-stimulated II-23.07 cells. The amino-terminal sequence(s) for p33 is reported; the amino acid sequence of the membrane-associated lymphotoxin band exactly matched that described for secreted lymphotoxin. The functional relevance of total tumor necrosis factor or lymphotoxin to T-cell activation is described.

ANSWER 2 OF 4 MEDLINE on STN DUPLICATE 1 T<sub>1</sub>8 The expression of membrane-associated forms of lymphotoxin (LT) AB and TNF were examined on cell lines of T, B, and myeloid origin, IL-2 dependent T cell clones, and peripheral blood lymphocytes. Inducible and constitutive patterns of surface LT expression were found on T cells as exemplified by the II-23.D7, a CD4+T cell hybridoma, and HUT-78, a T cell lymphoma. Phorbol ester induced surface LT expression on Ramos, an EBV transformed B cell line, but at a slower rate of appearance when compared to the II-23.D7. Secretion of LT was rapidly inducible by phorbol ester in II-23.D7 and also in HUT-78 but with slower kinetics; surface LT expression continued in both lines after secretion had ceased. Low levels of membrane TNF were transiently induced on II-23.D7 and HUT-78, but none was observed on Ramos. Peripheral blood monocytes and some myeloid tumor lines did not express surface LT. Several T cell clones expressed surface LT after Ag-specific stimulation, and expression persisted several days. Stimulation through the TCR or by IL-2 rapidly induced surface LT on resting peripheral T cells and CD56+ NK cells; pokeweed mitogen activation induced expression on CD20+ B cells. Consistent with previous results, immunoprecipitation with anti-LT mAb showed that LT was complexed with a distinct 33 kDa glycoprotein (p33) on cells that expressed surface LT, whereas secreted LT was not associated with p33. Surface and secreted modes of LT expression by activated T, B, and NK cells suggests that LT can be utilized as either a localized or diffusible mediator in immune responses.

1.8 ANSWER 3 OF 4 MEDLINE on STN DUPLICATE 2 We characterized the membrane-associated form of lymphotoxin AR (surface LT) on the activated II-23.D7 T cell hybridoma. Antibodies to rLT precipitated both surface LT and a distinct 33-kDa glycoprotein ( p33). Because p33 and surface LT were antigenically

unrelated, their coprecipitation suggested a physical association of p33 and surface LT on the membrane. Pulse-chase analysis indicated that LT and p33 associate with each other early in the LT biosynthetic pathway, precluding the possibility that LT is secreted and bound to p33 or a surface receptor. Furthermore, no p33 was associated with the secreted form of LT. Isoelectric focusing of surface LT and p33 under nondenaturing and denaturing conditions confirmed that surface LT and p33 existed as a complex. Treatment of cells with a high concentration of salt or with acid indicated that surface LT is a peripheral membrane protein. Although secreted LT is a homologous trimer, protein cross-linking studies revealed that surface LT existed as a monomer associated with a dimer of p33. Together the results demonstrate a novel mechanism for stable membrane expression of LT by activated T cells.

ANSWER 4 OF 4 MEDLINE on STN DUPLICATE 3 1.8 A human T cell hybridoma, II-23.D7, was induced with phorbol ester to express a surface form of  ${\bf lymphotoxin}$  (LT, TNF-beta) and an AΒ associated 33-kDa glycoprotein. The LT epitopes were detected by surface immunofluorescence staining and by immunoprecipitation from radioiodinated or biosynthetically labeled cells with the use of anti-rLT polyclonal and monoclonal antibodies. The epitopes detected by the antibody were related to LT because adsorption of the anti-rLT with PMA-activated II-23.D7 cells resulted in the removal of the neutralizing titer of the anti-rLT antiserum. Immunoprecipitation of surface radioiodinated II-23.D7 cells revealed two bands of 25 kDa and 33 kDa that were specifically precipitated with anti-rLT, but not anti-rTNF antibodies. Enzymatic digestion with glycanases showed both proteins to have N-linked carbohydrate, with O-linked sugar limited to the 25-kDa protein. determine the biochemical relationship between these proteins, the two LT-like forms were purified from detergent-solubilized II-23.D7 cells by immunoaffinity chromatography. Peptide mapping using CNBr cleavage showed the 25-kDa surface form to be identical to rLT, whereas the 33-kDa protein was different. Biosynthetic labeling studies showed that p33 contained both methionine and cysteine, whereas the p25 contained only methionine. Thus, the surface LT form lacks a leader peptide indicating an anchoring mechanism distinct from that described for membrane TNF. The nature of the attachment of this LT form to the membrane surface is not clear, however, neither TNF receptor binding nor lipid linkages appear to be involved. The accessory protein, p33, may anchor LT to the surface. These findings identify a new characteristic of LT and point toward an additional pathway by which T lymphocytes may mediate cytolytic activity and regulate inflammatory processes.

## => d 2

- L8 ANSWER 2 OF 4 MEDLINE on STN DUPLICATE 1
- AN 93094581 MEDLINE
- DN PubMed ID: 1281193
- TI Expression of surface lymphotoxin and tumor necrosis factor on activated T, B, and natural killer cells.
- AU Ware C F; Crowe P D; Grayson M H; Androlewicz M J; Browning J L
- CS Division of Biomedical Sciences, University of California, Riverside 92521-0121.
- NC DK-07310 (NIDDK)
- SO Journal of immunology (Baltimore, Md. : 1950), (1992 Dec 15) 149 (12) 3881-8.
  - Journal code: 2985117R. ISSN: 0022-1767.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Abridged Index Medicus Journals; Priority Journals
- EM 199301

> Last Updated on STN: 19960129 Entered Medline: 19930114

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LAST RELOADED: Jun 4, 2004 (20040604/UP).

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FILE 'MEDLINE, BIOSIS, SCISEARCH, BIOTECHNO, CAPLUS' ENTERED AT 10:32:37 ON 07 JUN 2004

L1 11251 S LYMPHOTOXIN

L2 16 S L1 AND P33

L3 5595 S L1 AND BETA

L4 1441 S LYMPHOTOXIN-BETA

L5 0 S L4 AND P33

L6 15 S L4 AND HIV

L7 9 DUP REM L6 (6 DUPLICATES REMOVED)

4 DUP REM L2 (12 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 10:42:27 ON 07 JUN 2004

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0 BETA

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(LYMPHOTOXIN(W)BETA)

15 IMMUN?

L9 0 L4 AND IMMUN?

=> s 14 and neoplasm

0 LYMPHOTOXIN

0 BETA

0 LYMPHOTOXIN-BETA

(LYMPHOTOXIN(W)BETA)

0 NEOPLASM

L10 0 L4 AND NEOPLASM

=> s 14 and lupus

0 LYMPHOTOXIN

0 BETA

0 LYMPHOTOXIN-BETA

(LYMPHOTOXIN(W)BETA)

0 LUPUS

L11 0 L4 AND LUPUS

=> s 14 and diabetes

- 0 LYMPHOTOXIN
- 0 BETA

L12

- 0 LYMPHOTOXIN-BETA (LYMPHOTOXIN(W)BETA)
- 1 DIABETES
- 0 L4 AND DIABETES

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	L4	p33 and L3	14
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	L2	L1 and neoplasia	. 118
	L1	lymphotoxin	1205

END OF SEARCH HISTORY